Amendments Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (previously presented): A method for efficiently transmitting GFP-encapsulated client data frames from a local transport interface and at least one local port associated therewith across a SONET/SDH transport network to a remote transport interface and at least one remote port associated therewith, said remote transport interface having a buffer for holding said GFP-encapsulated client data frames received across said SONET/SDH transport network, the method comprising:

receiving information from said remote transport interface of memory available in said buffer in terms of bytes to hold GFP-encapsulated client data frames;

tracking the number of bytes of GFP-encapsulated client data frames in transit from said local transport interface to said remote transport interface; and

transmitting more GFP-encapsulated client data frames responsive to said information of said number of bytes available in said remote transport interface buffer and said number of bytes in transit from said local transport interface to said remote transport interface to maximize usage of, without overfilling, said buffer without consideration of loss or corruption of encapsulated client data frames so that said SONET/SDH transport network from said local transport interface to said remote transport interface is efficiently utilized.

Claim 2 (original): The method of claim 1 wherein said client data comprise Fibre Channel signals.

Claim 3 (original): The method of claim 1 wherein said client data comprise gigabit Ethernet signals.

Claim 4 (previously presented): The method of claim 1 wherein said receiving step further comprises:

initially negotiating with said remote transport interface for the total amount of space in said buffer reserved for GFP-encapsulated client data frames received from said local transport interface.

Claim 5 (previously presented): The method of claim 1 wherein said tracking step further comprises:

sending an identification tag with each of said GFP-encapsulated client data frames; and counting the number of bytes of each of said GFP-encapsulated client data frames transmitted by said local transport interface to said remote transport interface; and

wherein said receiving information step further comprises:

receiving said identification tag for each of said GFP-encapsulated client data frames received by said remote transport interface and the number of bytes available in said remote transport interface buffer.

Claim 6 (original): The method of claim 5 wherein said tracking step further comprises:

calculating the number of bytes of GFP-encapsulated client data frames in transit from said local transport interface to said remote transport interface from said received identification tag and said number of bytes available in said remote transport interface buffer.

Claim 7 (original): The method of claim 5 said receiving information step further comprises:

determining whether said identification tag has been received from said remote transport interface within a predetermined amount of time; and

said transmitting step further comprises:

transmitting more GFP-encapsulated client data frames responsive to said determining that said identification tag has not been received within said predetermined amount of time.

Claim 8 (previously presented): In a network system for transporting GFP-encapsulated client data frames across a SONET/SDH transport network to a remote transport interface having

a buffer, a local transport interface connected to at least one local port, said local transport interface comprising:

at least one integrated circuit adapted to receive information from said remote transport interface of memory available in said buffer in terms of bytes to hold GFP-encapsulated client data frames; to track the number of bytes of GFP-encapsulated client data frames in transit from said local transport interface to said remote transport interface; and to transmit more GFP-encapsulated client data frames responsive to said information of said number of bytes available in said remote transport interface buffer and said number of bytes in transit from said local transport interface to said remote transport interface to maximize usage of, without overfilling, said buffer without consideration of loss or corruption of encapsulated client data frames so that said SONET/SDH transport network from said local network interface to said remote network interface is efficiently utilized.

Claim 9 (original): The transport interface of claim 8 wherein said client data comprise Fibre Channel signals.

Claim 10 (original): The transport interface of claim 8 wherein said client data comprise gigabit Ethernet signals.

Claim 11 (original): The transport interface of claim 8 wherein said at least one integrated circuit is further adapted to initially negotiate with said remote transport interface for the total amount of space in said buffer reserved for GFP-encapsulated client data frames received from said local transport interface.

Claim 12 (previously presented): The transport interface of claim 8 wherein said at least one integrated circuit is further adapted to send an identification tag with each of said GFP-encapsulated client data frames; to count the number of bytes of each of said GFP-encapsulated client data frames transmitted by said local transport interface to said remote transport interface; and to receive said identification tag for each of said GFP-encapsulated client data frames received by said remote transport interface and the number of bytes available in said remote transport interface buffer.

Claim 13 (original): The transport interface of claim 12 wherein said at least one integrated circuit is further adapted to calculate the number of bytes of GFP-encapsulated client data frames in transit from said local transport interface to said remote transport interface from said received identification tag and said number of bytes available in said remote transport interface buffer.

Claim 14 (original): The transport interface of claim 12 wherein said at least one integrated circuit is further adapted to determine whether said identification tag has been received from said remote transport interface within a predetermined amount of time; and to transmit more GFP-encapsulated client data frames responsive to said determining that said identification tag has not been received within said predetermined amount of time.

Claim 15 (original): The transport interface of claim 8 wherein said at least one integrated circuit is selected from a group comprising ASICs and FPGAs.

Claim 16 (original): The transport interface of claim 8 wherein said at least one integrated circuit comprises a processor and at least one memory subunit, said wherein said processor is configured by software code stored in the memory subsystem.

Claim 17 (previously presented): In a network system for transporting GFP-encapsulated client data frames across a SONET/SDH transport network to a remote transport interface having a buffer, a local transport interface connected to at least one local port, said local transport interface comprising:

means for receiving information from said remote transport interface of memory available in said buffer in terms of bytes to hold GFP-encapsulated client data frames;

means for tracking the number of bytes of GFP-encapsulated client data frames in transit from said local transport interface to said remote transport interface; and

means for transmitting more GFP-encapsulated client data frames responsive to said information of said number of bytes available in said remote transport interface buffer and said number of bytes in transit from said local transport interface to said remote transport interface to maximize usage of, without overfilling, said buffer without consideration of loss or corruption of

encapsulated client data frames so that said SONET/SDH transport network from said local network interface to said remote network interface is efficiently utilized.

Claim 18 (original): The transport interface of claim 17 wherein said client data comprise Fibre Channel signals.

Claim 19 (original): The transport interface of claim 17 wherein said client data comprise gigabit Ethernet signals.

Claim 20 (original): The transport interface of claim 17 further comprising:

means for initially negotiating with said remote transport interface for the total amount of space in said buffer reserved for GFP-encapsulated client data frames received from said local transport interface.

Claim 21 (previously presented): The transport interface of claim 17 further comprising:

means for sending an identification tag with each of said GFP-encapsulated client data frames; to count the number of bytes of each of said GFP-encapsulated client data frames transmitted by said local transport interface to said remote transport interface; and

means for receiving said identification tag for each of said GFP-encapsulated client data frames received by said remote transport interface and the number of bytes available in said remote transport interface buffer.

Claim 22 (original): The transport interface of claim 21 further comprising:

means for calculating the number of bytes of GFP-encapsulated client data frames in transit from said local transport interface to said remote transport interface from said received identification tag and said number of bytes available in said remote transport interface buffer.

Claim 23 (original): The transport interface of claim 21 further comprising:

means for determining whether said identification tag has been received from said remote transport interface within a predetermined amount of time; and

means for transmitting more GFP-encapsulated client data frames responsive to a determination that said identification tag has not been received within said predetermined amount of time.

Claim 24 (new): A method for efficiently transmitting GFP-encapsulated client data frames from a local transport interface and at least one local port associated therewith across a SONET/SDH transport network to a remote transport interface and at least one remote port associated therewith, said remote transport interface having a buffer for holding said GFP-encapsulated client data frames received across said SONET/SDH transport network, the method comprising:

receiving information from said remote transport interface of memory available in said buffer in terms of a number of bytes to hold GFP-encapsulated client data frames;

tracking the number of bytes of GFP-encapsulated client data frames in transit from said local transport interface to said remote transport interface, including timing at said local port against a time limit to check for loss of GFP-encapsulated client data frames across the transport network; and

transmitting more GFP-encapsulated client data frames responsive to said information of said number of bytes available in said remote transport interface buffer and said number of bytes in transit from said local transport interface to said remote transport interface and to said timing to maximize usage of, without overfilling, said buffer without consideration of loss or corruption of encapsulated client data frames so that said SONET/SDH transport network from said local transport interface to said remote transport interface is efficiently utilized.

Claim 25 (new): In a network system for transporting GFP-encapsulated client data frames across a SONET/SDH transport network to a remote transport interface having a buffer, a local transport interface connected to at least one local port, said local transport interface comprising:

at least one integrated circuit adapted to receive information from said remote transport interface of memory available in said buffer in terms of a number of bytes to hold GFP-encapsulated client data frames; to track the number of bytes of GFP-encapsulated client data frames in transit from said local transport interface to said remote transport interface, including timing against a time limit to check for loss of GFP-encapsulated client data frames across the transport network; and to transmit more GFP-encapsulated client data frames responsive to said information of said number of bytes available in said remote transport interface buffer and said number of bytes in transit from said local transport interface to said remote transport interface

and to said timing to maximize usage of, without overfilling, said buffer without consideration of loss or corruption of encapsulated client data frames so that said SONET/SDH transport network from said local network interface to said remote network interface is efficiently utilized.